RKP21x-208KVM Series
RKP241x-208KVM Series

USER'S MANUAL

Introduction

Thank you for purchasing RKP215-208KVM Rackmount LCD Keyboard Drawer with 8 ports KVM switch. LCD Keyboard Drawer with 8 ports KVM switch is ideal for application where space is critical.

RKP215-208KVM is a combination of keyboard, trackball, KVM switch and TFT LCD packed into a drawer with features such as monitor flip up design, adjustable mounting brackets, built in LCD OSD, centralized control of 8 PCs.

Features

- Unique mechanical design to maximize rack mountable space
- Unique monitor flip up design allows viewing through closed glass door of cabinet
- Adjustable mounting brackets for multiple depth cabinets between 650mm and 1000mm
- Lightweight aluminum construction – with a black anodize finish
- High quality keyboard with integrated trackball
- Keyboard options supporting twelve languages
- Side to side wide-angle viewing as CRT monitor
- Built in On Screen Display controlled by integral membrane switches
- Power saving feature for prolonging the life of LCD panel
- Standard D-sub 15-pin VGA input connector
- Front-access lock for security
- EMC shielding around the monitor housing to minimize interference
- All mounting hardware included
- Built in KVM switch function for easy controlling and monitoring up to 8 residing servers
- Support eight character password protection and search PC server name
- Auto scan mode for monitor PCs and flexible scan time from 5 ~ 99 sec
- LED display for easy status monitoring
- Supplied with eight screened cables 6 ft long

Packing Contents

RKP215-208KVM LCD Keyboard Drawer with KVM switch	1 PCS
User's manual	1 PCS
AC to DC Power Adapter w/power cord	1 PCS
Rack Mount Kit	1 SET
Standard 3-in-1 KVM cable	8 PCS

Before Unpacking

It is very important to locate the LCD Keyboard Drawer with KVM switch in a suitable environment.

- The surface for placing and fixing the LCD Keyboard Drawer with KVM switch should be stable and level or mounted into a suitable cabinet.
- Make sure the place has good ventilation, is out of direct sunlight, sway from sources of excessive dust, dirt, heat, water, moisture and vibration.
- Convenience for connecting the LCD Keyboard Drawer with KVM switch to the related facilities should be well considers too.

Unpacking

The LCD Keyboard Drawer with KVM switch comes with the following standard parts shown as below. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

Connection

The DC Power inlet and connection cables are located in the lower rear panel of the LCD Keyboard Drawer.

1. DC Power Inlet f : plug in the AC to DC Power Adapter
2. VGA port : Connect to VGA port in computer
3. PS/2 Keyboard cable : Connect to keyboard port in computer
4. PS/2 Mouse cable : Connect to mouse port in computer

Important Safeguards

Please read all of these instructions carefully before you use the device.

Save this manual for future reference.

- Unplug the LCD Keyboard Drawer with KVM switch from the power outlet before cleaning.
- Do not spray liquid cleaners or aerosol directly on the device. Wet a cloth with a neutral detergent (e.g. clean water) and squeeze it tight, then clean the screen slightly with it.
- Do not expose the LCD Keyboard Drawer with KVM switch directly to rain, water, moisture or sunlight.
- Avoid pressure on the LCD screen to prevent permanent damage to the display.
- Do not attempt to service the device yourself. Improper operation may void your warranty. Refer all servicing to qualified service personnel.
- Safe storage environment of the LCD Keyboard Drawer with KVM switch is ranging between -20°C and 60°C. Permanent damage could occur if the LCD Keyboard Drawer with KVM switch is stored outside the safe range.
- Unplug the LCD Keyboard Drawer witch KVM switch immediately and call a qualified service personnel under the following conditions:
  1. The VGA signal cord is frayed or damaged.
  2. If the monitor has been exposed to rain, liquid or water.
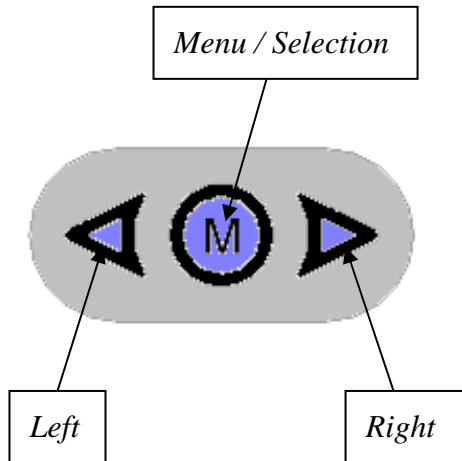 3. If the monitor has been dropped or the casing has been damaged.

What the warranty does not cover

1. Any product, on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
   a) Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
   b) Repair or attempted repair by anyone not authorized by us.
   c) Any damage of the product due to shipment.
   d) Removal or installation of the product.
   e) Causes external to the product, such as electric power fluctuation or failure.
   f) Use of supplies or parts not meeting our specifications.
   g) Normal wear and tear.
   h) Any other causes which does not relate to a product defect.
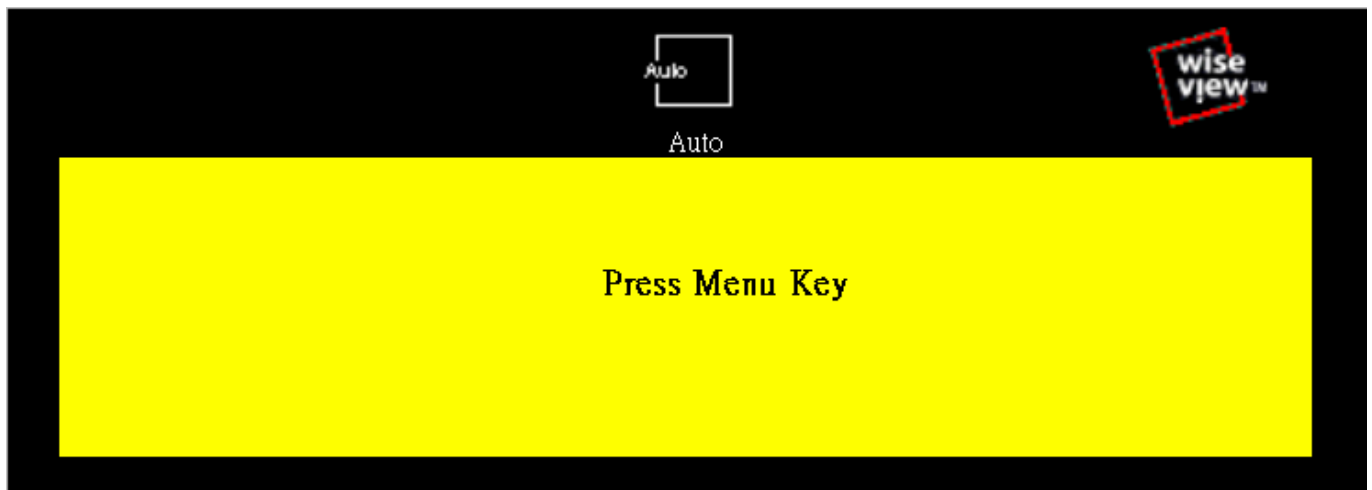3. Removal, installation, and set-up service charges.

LCD Session

On Screen Display - OSD

■ OSD is the convenient way for a user to adjust the screen performance to his satisfaction.

Menu / Selection

Left   *Right*

1. Entering the OSD Meun

2. Press the (M) to display the OSD main menu.

3. Selecting icons for adjusting

4. Use (M) buttons to scroll through the icons within the main menu and other sub-menus the currently selected icon will be highlighted.

5. A *slider bar* is displayed whenever a value is to be sent. Use ◀ ▶ buttons to scroll along the bar.

6. Saving the settings and Exit

7. Selections / selected values is automatically saved once made.

Auto

Auto

Press Menu Key

8. Select "Auto" for autoadjust LCD quality

Customizing the Settings

1. Brightness

- To perform brightness adjustment of the input RGB signal

2. Contrast

- To adjust the contrast level of the input signal

3. Phase

- To optimize the picture quality by adjusting the sampling clock of the input RGB Signal

4. Frequency

- To adjust the frequency of the input signal to optimize the picture quality

5. H - Position

- To adjust the horizontal position of the frame

6. V - Position
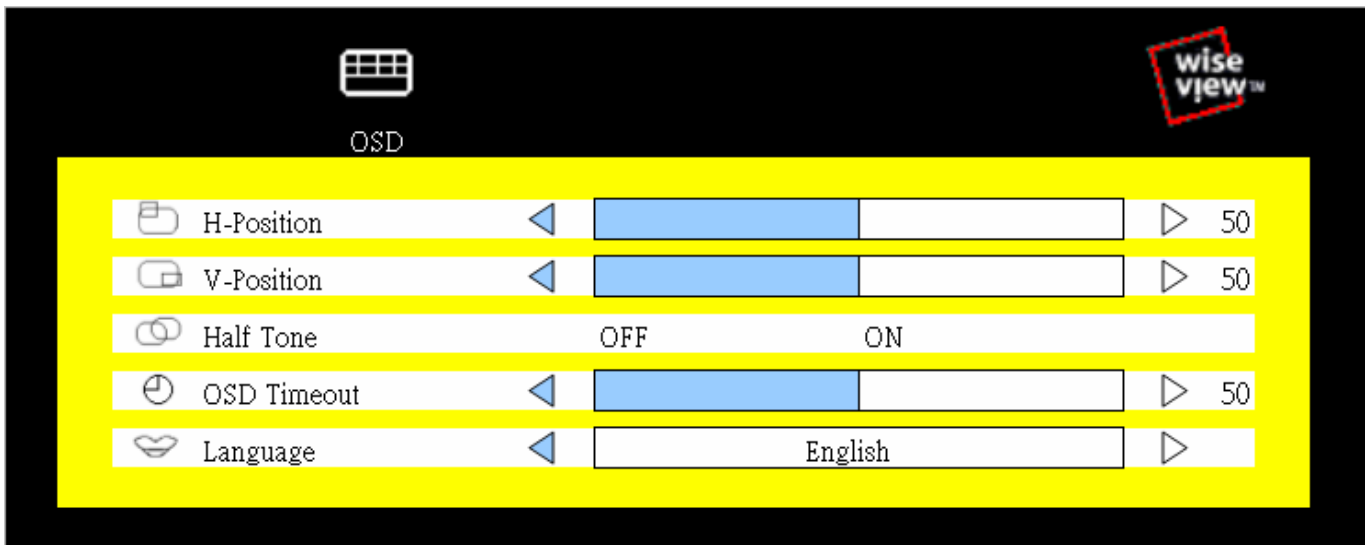
- To adjust the vertical position of the frame

7. Sharpness

- To enhance more sharpening on the appearance of images

8. Color Temperature

- To enter into the Color temperature sub-menu

1. **H - Position**
- To adjust the horizontal position of the OSD frame
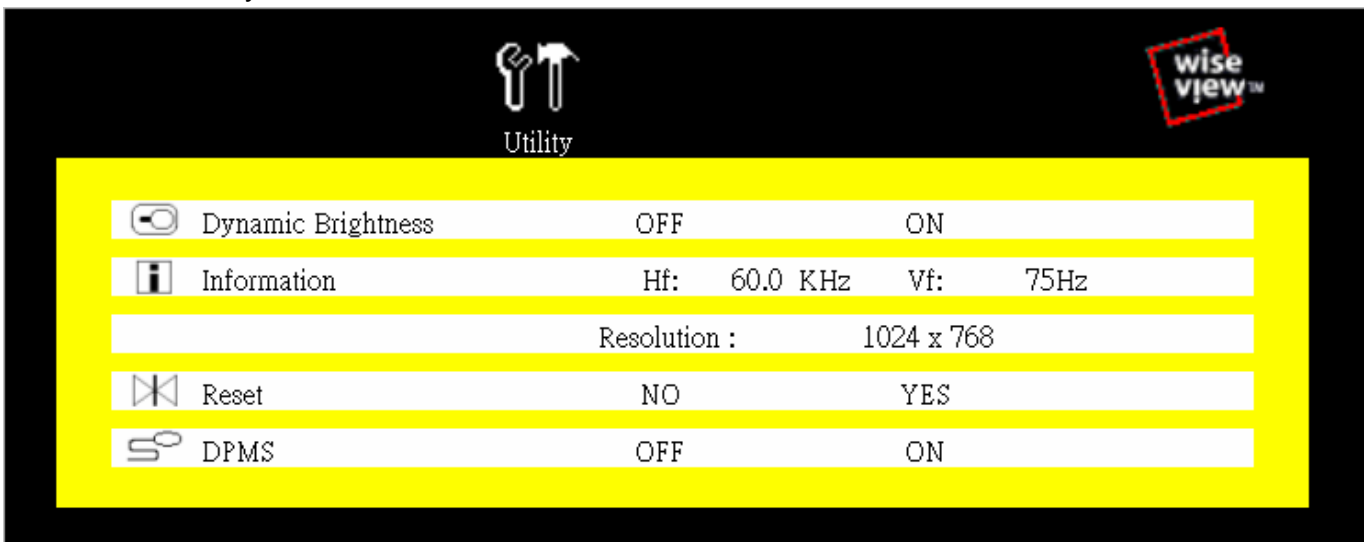2. **V - Position**
- To adjust the vertical position of the OSD frame
3. **Half Tone**
- To switch the OSD color from full color to half tone
4. **OSD Timeout**
- To modify the duration of the OSD time-out

1. **Information**
- To display the existing input signal information
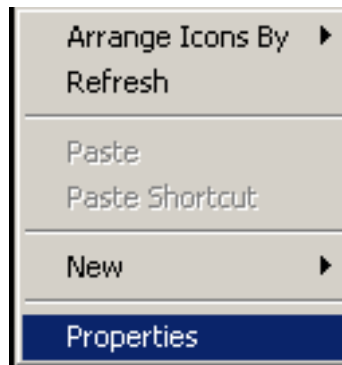2. **Reset**
- To reset the LCD to factory setting
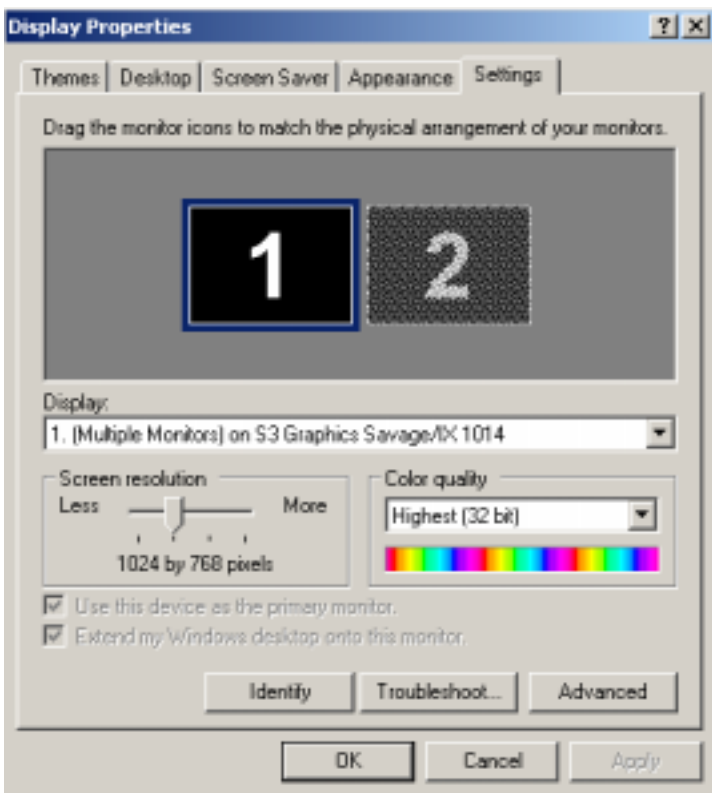
3.   Half Tone

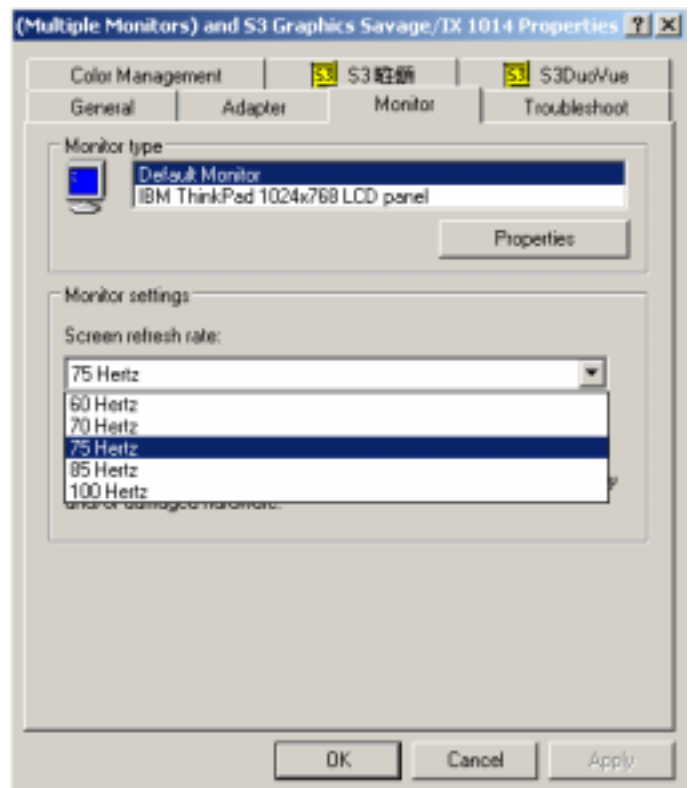- To switch LCD power ON/OFF auto mode

Resolution Setting

Step 1 – Press right click on the desktop

Step 2 – Choose "Properties"

Step 3 – change the "Screen Resolution"   **Step 4 – change the "Screen refresh rate"**

FAQ

■ **My display doesn't work, even though the computer appears to work**

1. Make sure the power cable is securely plugged into the display
2. Make sure the display is turned on
3. Try turning the display off and then turning it on again
4. Make sure the display's power cord is plugged into a power outlet and into the AC power adapter. Check to see whether the outlet works by plugging another device into the outlet
5. Check the connection between the display and the computer, The cable connectors must be pushed in all the way

■ **The message "Check Cable" appears on my display**

1. This message appears when the video cable is not properly connected to the computer
2. Make sure the analog video cable is plugged into the Analog Video Input port on the back of the display
3. Make sure the other end of analog video cable is plugged into the PC's video port

■ **The message "No Sync" appears on my display**

1. This message appears when there is no video signal from the computer
   a. with cable already connected
2. Make sure that the computer's power is turn on
3. Make sure that your graphic card has its output already

■ **The message "Signal Out of Range" appears on my display**

1. This message appears when the input signal is beyond the display's capability
2. 13.3" 1024 x 768 at 70Hz (Max.)
3. 15.1" 1024 x 768 at 75Hz (Max.)
4. 17.1" 1280 x 1024 at 75Hz (Max.)

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FAQ – Sun Server

- Sun Server are using resolution at 1152 x 900 x 76Hz
- Supported resolution mode
    - 640 x 480 x 70/75Hz
    - 800 x 600 x 70/75Hz
    - 1024 x 768 x 70/75Hz
    - 1280 x 1024 x 75Hz (17" LCD)
    - Note the Max. frequency of 13.3" is 70Hz
- You need to change the Sun Server resolution before you connect to LCD Display

- Please do the following procedure to change the resolution setting :
    1. as root:
    you may find the following comment "/user/sbin/m64config"
    2. Type "/user/sbin/m64config – prconf"
       to view current resolution
    3. Type "/user/sbin/m64config – res 1024x768x70 now"
       to change to 1024x768 @ 70MHZ
    4. the screen will be rubbish
    5. Then type "pkill Xsun"
    6. And Type "pkill Xsession" to restart the Xsession
Remember this process need to RESTART the server

- Under Common Desktop Environment (CDE)
- To change the OpenBoot resolution, you can type the following commend in OK prompt

    1. In OK prompt, type "setenv output-device screen:r1024x768x70"
    2. Type "printenv" to confirm the resolution has been changed to 1024x768x70Hz
    3. Then type "reset" to restart the system
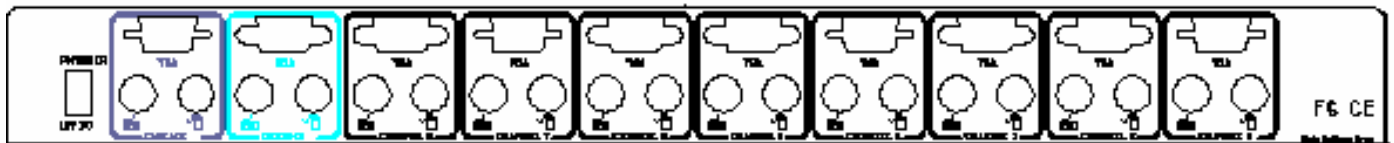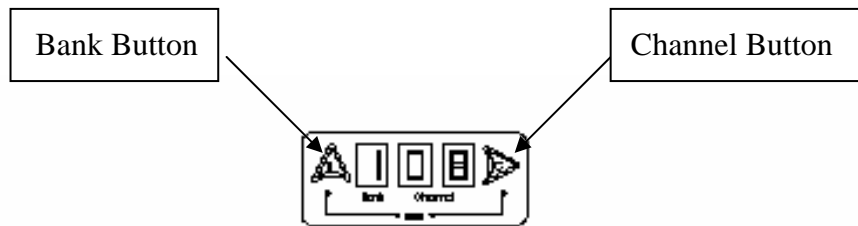Remember this process need to RESTART the server

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Technical Information

LCD	Size	17"
	Screen Type	TFT Active Matrix
	Display Area	337.92mm(H) x 270.336mm(V)
	Contrast Ratio	350 : 1
	Viewing Angle	150° (H) x 125° (V) Typ.
	Resolution	XGA 1280 x 1024
	Pixel pitch	0.264mm (H) x 0.264mm (W)
	Response Time	Tr=5ms, Tf=20ms Typ
	Brightness	250 cd/m2
	Panel Color	16.7M Colors
	Back Light	4 Lamps
Video	Synchronization	Horizontal : 31-69 KHz
	Range	Vertical : 56-75 Hz
	Input Signal	Analog RGB 0.7Vp-p
Power Management	VESA DPMS	
Control	Power	Micro on/off switch on the backside
	OSD Control	Brightness, Contrast, Color, H position, V position, Auto config, OSD adjust, Dither, etc.
External Connection	Power Input	12V/5A DC adapter
	Video Input	15-pin D-Sub connector

LCD	Size	15"
	Screen Type	TFT
	Display Area	304.1mm(H) x 228.1mm(V)
	Contrast Ratio	300 : 1
	Viewing Angle	130° (H) x 110° (V) Typ
	Resolution	1024 x 768
	Pixel pitch	0.297mm (H) x 0.297mm (W)
	Response Time	Tr=5ms, Tf=20ms Typ
	Brightness	250 cd/m2
	Panel Color	16.2M
	Back Light	4 CCFTs (Cold Cathode Fluorescent tube)
Video	Synchronization	Horizontal : 48.36-60 KHz
	Range	Vertical : 56-75 KHz
	Input Signal	Analog RGB 0.7Vp-p
Power Management	VESA DPMS	
Control	Power	Micro on/off switch on the backside
	OSD Control	Brightness, Contrast, Color, H position, V position, Clock, Phase, Auto config, Scaling, Input select, Clear EEPROM, Multi window, OSD adjust, Save
External Connection	Power Input	12V/5A DC adapter
	Video Input	15-pin D-Sub connector

KVM Session

KVM

Bank Button   Channel Button

PS/2 Cable:
■   Mini Din 6 pin Male to Male

VGA Cable:
■   HDB15 pin Male to Male

Installation

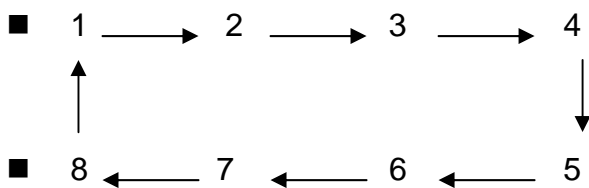Before installation, please make sure all of peripherals and computers have been turned off.

1. Connect the Keyboard, VGA, Mouse cables to the computer ports of KVM switch
2. After Powering on computers and finishing the boot-up process, you can start to go KVM switch.

Note:

Please don't switch the PC port (i.e. Don't press the push button of KVM switch or run hot key) during the computers are under boot-up process.

Startup

1. Power on the KVM power

2. 7 segments LED is on

3. Key-in the password, default is "00000000"

4. If you forget your password, please send back to Manufacturer / Distributor

5. Pressing ▶ to view all port

■ 1 ⟶ 2 ⟶ 3 ⟶ 4

■ 8 ⟵ 7 ⟵ 6 ⟵ 5

LED Indication
- ■ When you change the channel
- ■ If the PC is turn off or is disconnected
- ■ The LED will flash otherwise is will lit

Keyboard hot key command
- ■ Simple key sequence
- ■ Press " Scroll Lock" twice within 2sec
- ■ Follow with a beep sound, going into the hot key mode
- ■ Need to key in the hot key within 2 sec
- ■ Go back to Operation System Control state

Hot Key

- ■ Press "Bank" & "Channel" at the same time to reset the KVM switch to default setting
  - • S.L. + S.L. + ⬆ **Previous Channel**
  - • S.L. + S.L. + ⬇ **Next Channel**

Note: You also could press "up arrow key" or "down arrow key" longer time to speed up selecting the destination port

  - • S.L. + S.L. + *Page Up* **Previous Bank**
  - • S.L. + S.L. + *Page Down* **Next Bank**

- ■ **To Select PC port**
  - • S.L. + S.L. + *Bank No. + Port No.*
  - • Bank No. 1 – 8 (Max.) Port No. 01 – 16 (Max.)
  - • Example we select Bank 3 Channel 14
  - • S.L. + S.L. + 3 + 14
  - • Example we select Bank 7 Channel 5
  - • S.L. + S.L. + 7 + 05

- ■ **Beeper On/Off**
  - • S.L. + S.L. + *B* (Default is On)

- ■ **Auto Scan**
  - • S.L. + S.L. + *S* (Default is 10 sec from P to P)
  - • Press any key to stop

- ■ **Rom Refresh**

<div style="background:blue;color:cyan">**ROM REFLASH**</div>

  - • S.L. + S.L. + *R* (Refresh to OSD Default Value)
    Not include the PASSWORD

- ■ **Find by PC name**

<div style="background:blue;color:yellow">**F I N D :**</div>

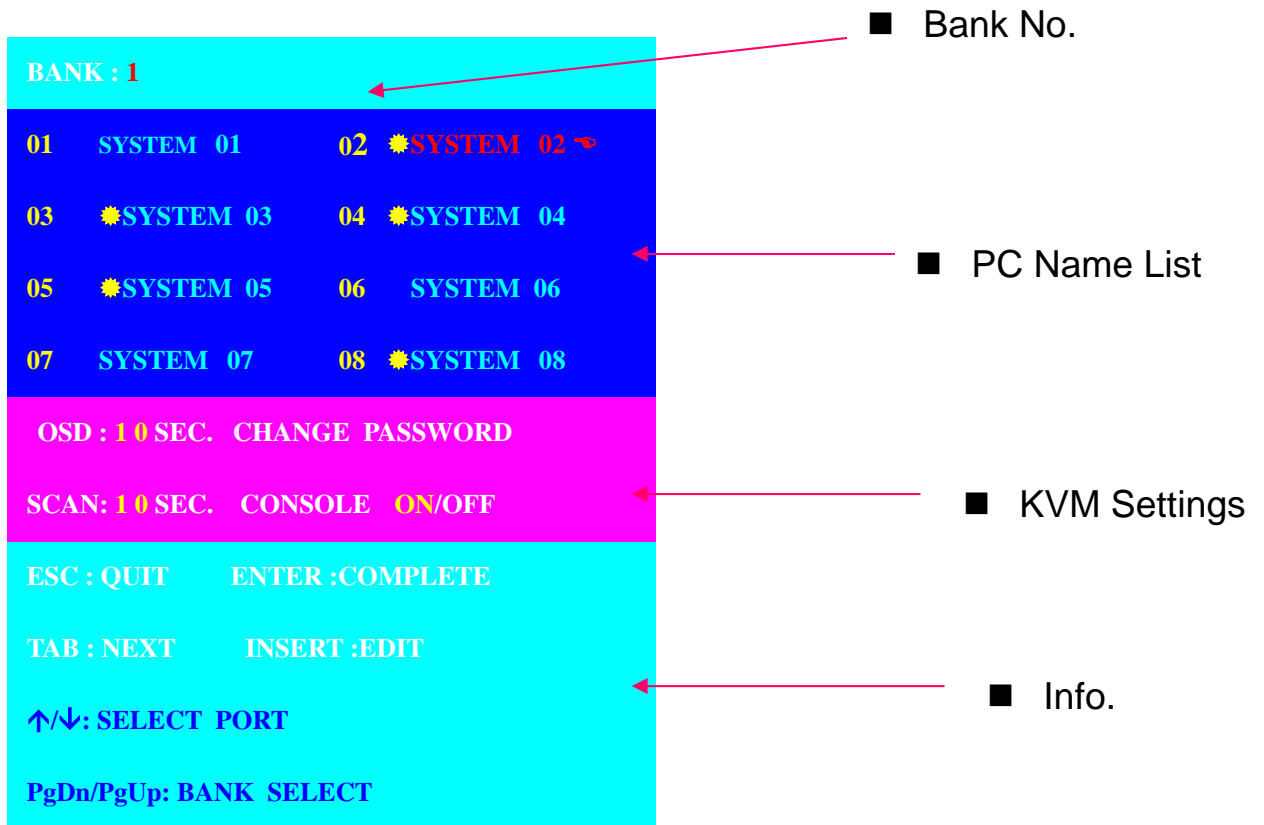 - • S.L. + S.L. +*F*
  - • Key the PC name
  - • Search PC name starting from 1st PC port

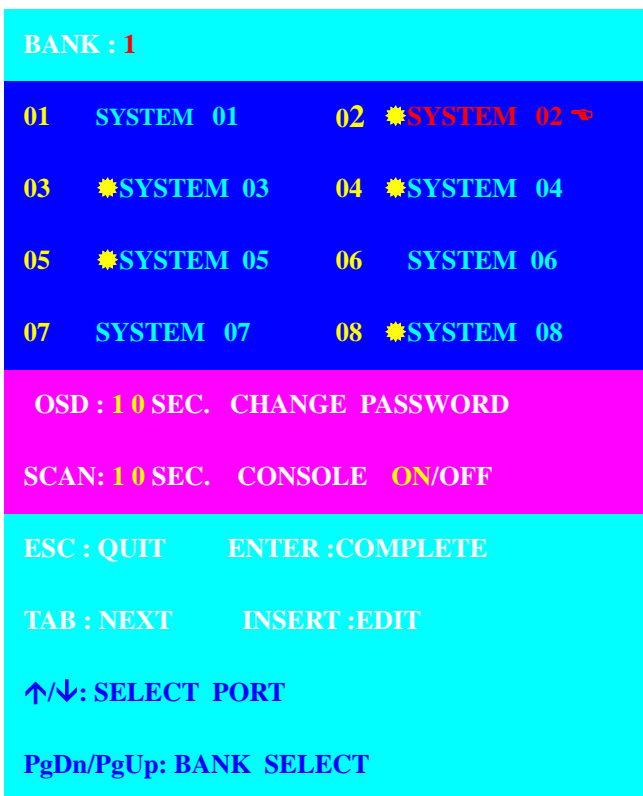- ■ **OSD Menu**
  - • S.L. + S.L. + *Spacebar*

OSD Menu

■ Bank No.

BANK : 1	
01 SYSTEM 01	02 ☀SYSTEM 02
03 ☀SYSTEM 03	04 ☀SYSTEM 04
05 ☀SYSTEM 05	06 SYSTEM 06
07 SYSTEM 07	08 ☀SYSTEM 08

■ PC Name List

OSD : 1 0 SEC. CHANGE PASSWORD

SCAN: 1 0 SEC.   CONSOLE   ON/OFF

■ KVM Settings

ESC : QUIT   ENTER :COMPLETE

TAB : NEXT   INSERT :EDIT

↑/↓: SELECT PORT

PgDn/PgUp: BANK SELECT

■ Info.

■ Use "*Tab*" key to select items like Bank, OSD, SCAN, CHANGE PASSWORD, CONSOLE ON/OFF, etc…

■ Use *Page Up* & *Page Down* to switch previous or next bank

OSD Menu

BANK : 1

01	SYSTEM 01	02	✹SYSTEM 02
03	✹SYSTEM 03	04	✹SYSTEM 04
05	✹SYSTEM 05	06	SYSTEM 06
07	SYSTEM 07	08	✹SYSTEM 08

OSD : 1 0 SEC. CHANGE PASSWORD

SCAN: 1 0 SEC. CONSOLE ON/OFF

ESC : QUIT   ENTER :COMPLETE

TAB : NEXT   INSERT :EDIT

↑/↓: SELECT PORT

PgDn/PgUp: BANK SELECT

- **PC Name List**
- "✹" near to the PC name represents the PC system is powered on
- Use up arrow key "↑" or down arrow key "↓" to select port for destination PC name and press "Enter" to select
- **Edit PC name**
- Press "Ins" key for editing PC name
- PC name should not more than 8 characters
- After finish edit press "Enter"

- OSD – 10 sec

- OSD window display or PC name exist 10 sec
- Default Value is 10 sec
- Modify from 05 – 99 sec

- Scan – 10 sec

- Scan interval from one PC port to next PC port is 10 sec
- Default Value is 10 sec
- Max. 99 sec

OSD - Password

ENTER PASSWORD :
ESC : QUIT   ENTER :

↓

ENTER NEW PASSWORD :
ESC : QUIT   ENTER : COMPLETE

↓

RETYPE NEW PASSWORD :
ESC : QUIT   ENTER : COMPLETE

↓

NEW PASSWORD COMPLETE
ESC : QUIT   ENTER : COMPLETE

- Changing Password

- Default password "00000000"
- Choose "Change Password"
- Key-in the existing password
- Enter the New Password
- Re-Enter the New Password
- Changing Password complete
- Max. 8 digits

Console On/OFF

- ON – any user can the console
- OFF – user is not allow to use the console, unless key-in password
- Default – OFF, you need to key-in password

Escape

- PC name show in the up-left corner

102	?SYSTEM 02

- Press "Esc" key to dear the message right away of OSD menu
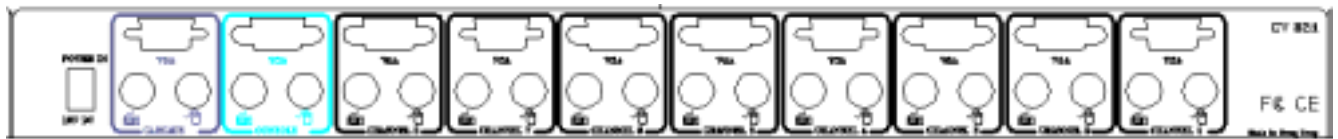
Cascade

Using 3 in 1 KVM cable connect from Bank 1's "Cascade port" to Bank 2's "Console port". After connected please press "Bank" & "Channel" button on the front of the KVM switch to reset the KVM switch.
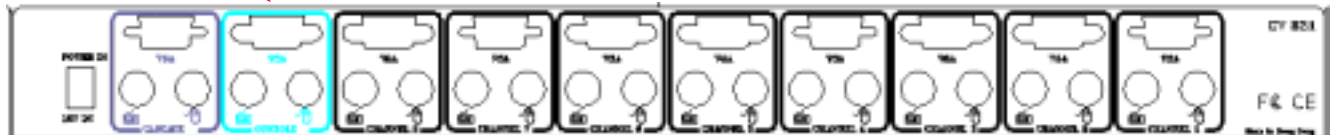
Bank 1

Bank 2

Bank 3

Bank 8 (Max)

- Cascade level Max. 8 level

- Max. PC connection is 128 (all using 16 ports)

- All KVM switch is compatible & can cascade with each other

- Using 3 in 1 KVM cable to cascade

- Normal distance from one KVM to another is 15ft

FAQ

1. Don't press any keys on the keyboard while the selected computer is booting up. Otherwise, it might cause the keyboard error or keyboard is not detected at PC side.

2. The computer boot up fine, but keyboard doesn't work
- Make sure the keyboard works when directly plugged into the computer.
- Try a different keyboard, but use only 101, 102 or 104-key keyboard.

3. The Mouse is not detected during PC boot up.
- Make sure the mouse works when directly plugged into the computer.
- Make sure the mouse is a true PS/2 mouse. A combo mouse will work just as long as it is set for PS/2 mode with the correct adapter. Try a different mouse.
- Avoiding moving the mouse or pressing the mouse buttons when switching ports.
- Avoiding switching ports during shutting down the PC process.
- When you switch one PC port to another PC port, the best scan time setting need to be set to 5 sec. or more. Normally, the VGA monitor change one resolution mode to another will take one or two seconds. So, the scan time is not recommended to below 5 seconds.

4. Sun Server connection problem

KVM switch are using standard PS/2 type keyboard and mouse and D-sub 15pin VGA for connection. If you need to connect Sun Server to KVM switch, you need a separate converter kit.

Sun – 21 Kit
- Convert Sun Micro Din 8 pin Keyboard & Mouse to Standard Din 6 pin P/S 2 Keyboard & Mouse
- Convert Sun micro 13W3 VGA to D-sub 15 pin Standard VGA
- For old model Sun Micro Server

Sun – 31 Kit
- Convert USB to P/S 2 Keyboard & Mouse
- New model Sun Micro Server are using D-sub 15 pin Standard VGA

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Technical Information

	8 Ports KVM Switch
PC Port	8
PC Port Connector (All Female Type)	PS/2 Keyboard mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin
Daisy Chain Port Connector (All Female Type)	PS/2 Keyboard mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin
PC selection	On Screen Display Manual, Hot Key, Push Button
7 segment LED	One Bank LED, Two PC Port LEDs
On Screen Display Control	Yes
Scan Intervals	5~99 Sec.
Keyboard Emulation	PS2
Mouse Emulation	PS2
VGA Resolution	1920X1440
Bandwidth	200MHz
Daisy Chain MAX Level	8 levels
MAX PC Connection	120
Housing	Metal
Power Adapter	DC 12V 1A or DC 9V 1A
Operation Temperature	0~40
Storage Temperature	-20 ~ 60
Humidity	0~80%, Non-Condensing
Size	19" Rack Mount / 1RU